

EPA Region 7 Laboratory Analysis Information

04/05/2019 08:57

ASR: 8209

Analysis Name: Mercury in Water

Analysis Request No 1

Analysis Short Name Hg W.23E

Matrix: Water

Parameter Class: Metals

Analysis Status: Current

Analysis Summary:

This analysis is performed following RLAB Method 3121.23E which substantially meets the requirements of SW-846 Method 7473. Mercury is considered one of the most toxic of the elements. Mercury toxicity differs by the type of mercury; organic mercury compounds are most toxic, and inorganic mercury compounds are more toxic than elemental mercury. There have been cases of blindness, neurological disorders, and even death caused by people eating seed corn coated with a mercury fungicide. And many people were affected in Japan on the Minamata Bay in the late 1970s because of eating fish contaminated with mercury from a nearby plant. Mercury combines with the proteins in the body, and thus enzymes (which are proteins) do not work correctly for a body poisoned with mercury. A chemistry professor died in 1997 from absorbing a small amount of organic mercury through a glove.

Method: RLAB Method 3121.23E

Date Adopted: 03/26/2018 **Date Replaced:**

Method Desc:

EPA Region 7 RLAB Method 3121.23E

Method Title:

Mercury in Solids and Solutions by Thermal Decomposition, Amalgamation and Atomic Adsorption Spectrophotometry

Method Summary:

(Not Available)

Base Method

SW846 7473

Title

Mercury in Solids and Solutions by Thermal Decomposition, Amalgamation, and Atomic Absorption Spectrophotometry

Type

Analysis

Capable Labs: EPA (In-House)
CLP (Out-Source)
REST (Out-Source)

Previous Method: RLAB Method 3121.23D **Date Adopted:** 08/30/2012 **Date Replaced:** 03/26/2018

Sample Holding Time 28 **Days** **Extract Holding Time:** 0 **Days** **No Of Containers:** 1

Container Type: 1 Liter plastic bottle **Weight Type:** N/A **No Of Tags:** 1

Preservative: 5 mL of HNO₃/L to pH<2

Sampling Info:

RLAB Method 3121.14E Water

Sampling Narrative:

Samples collected in plastic bottles have a holding time of 28 days, but samples collected in glass can be held up to 180 days.

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Report Flag			Analyte Name	CAS Number	TRL	Con Of Concern	Units
Default	Requested	EPA					
Yes	Yes	Yes	Mercury	7439-97-6	0.25		ug/L

Default Report Flag: Yes Analyte that is routinely reported from in-house analysis.

Requested Report Flag: Yes Result will be stored and reported.